

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Bezos et al.

Application No.: 09/437,815

Confirmation No.: 8505

Filed: November 10, 1999

Art Unit: 3622

For: METHOD AND SYSTEM FOR
ALLOCATING DISPLAY SPACE

Examiner: Jeffrey D. Carlson

APPEAL BRIEF (CORRECTED)

MS Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Further to the Notice of Non-Compliant Appeal Brief dated December 29, 2006, Applicant submits this corrected Appeal Brief.

As required under 37 C.F.R. § 41.37(a), this brief is in furtherance of the Notice of Appeal in this application filed on May 13, 2005. The fees required under 37 C.F.R. § 41.20(b)(2), and any required petition for extension of time for filing this brief and fees therefor, are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37. The complete Table of Contents follows.

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I. REAL PARTY IN INTEREST

The real party in interest for this appeal is Amazon.com, Inc. of Seattle, Washington.

II. RELATED APPEALS, INTERFERENCES, AND JUDICIAL PROCEEDINGS

There are no related appeals, interferences, or judicial proceedings.

III. STATUS OF CLAIMS

Claims 1-5, 7-9, 31-36, 41-55, and 75-101 are pending in this application. These claims stand rejected under 35 U.S.C. §§ 102(e) and 103(a).

Claims 6, 10-30, 37-40, and 56-74 were cancelled during prosecution.

Claims 1-5, 7-9, 31-36, 41-55, and 75-101 are the subject of the present appeal. The text of these claims is set forth below in the Claims Appendix.

IV. STATUS OF AMENDMENTS

Applicants filed an amendment subsequent to the final rejection on October 13, 2005 to amend claims 45 and 91 to correct minor errors. On December 29, 2005, the Examiner indicated that the amendment would be entered. The Claims Appendix includes a copy of these claims as amended

V. SUMMARY OF CLAIMED SUBJECT MATTER

A. Overview of the Invention and Prior Art

1. The Invention

Applicants' invention in specific embodiments facilitates the revenue-maximizing allocation of advertising display space on an Internet web page. When a server engine generates a web page, a display space system often works with the server engine to add advertisements to the web page. To select an advertisement, some sellers of Internet display space auction the space to advertisers. The advertisers who want to purchase display space for their advertisements submit advertising plans that specify the types of web pages for which they want to purchase display space, the desired number of ad

placements, a bid amount, and so on.¹ If only one bid is submitted, that bid is selected. When the display space meets the requirements of multiple advertising plans, each of the associated advertisers places a bid. The typical seller, however, may select the highest current bid. Although such a strategy will maximize the revenue for that display space opportunity, it may not maximize the overall advertising revenue for the seller.² According to applicants' invention, actual advertiser bid amounts may be normalized "so that when a web page is accessed the display space can be allocated to the advertiser with the highest normalized bid amount." See Specification, 11:10-12. "The display system may normalize the bid amount using various factors, such as actual bid amount and the likelihood that the advertiser will be provided with display space on the requested number of web page accesses. The highest normalized bid is the bid that is anticipated to lead to the maximum overall revenue." See Specification, 11:12-16. By allocating display space to the advertiser with the highest normalized bid, a received bid may be selected "whose bid amount is not the highest of the bids whose advertisement is eligible to be placed on the web page." See Claim 1 (emphasis added); see also Claims 45, 75, 91, and 101 (all the independent claims recite similar language).

A simple example will help to illustrate this. Assume advertiser X has submitted a bid of \$7 for a particular display space auction. Advertiser Y, who just now enters the auction, submits a bid of \$10. In this example, the advertising plan for X has only one day remaining and 100 ads yet to be placed, while Y's advertising plan is set for 10 days and 300 desired ads. Each day, there are only 100 available display space opportunities that match both advertising plans. A conventional auction system is designed to accept only the highest bid. Thus, Y's bid of \$10 would win the next 100 display space opportunities, and X would end up with 100 unplaced ads. A seller of the display space who uses the conventional technique misses out on \$700 in potential revenue from X. An auction

¹ An advertising plan may employ sophisticated algorithms to identify those web pages on which to place bids and how much to bid. The algorithms may factor in demographics of the viewer, content of the web page, time of day, and so on.

² For example, "if the time period for the losing advertising plan expires without all the requested number of web page accesses being satisfied, then it would have increased the overall revenue if that display space had been awarded to the losing advertising plan (assuming that all the requested number for the winning advertising plan would still be satisfied)." See Specification, 11:6-10.

system according to applicants' invention, in contrast, would use normalized bid amounts to capture this \$700 in revenue. Since Y has 1000 total opportunities to get its 300 ads placed, there is no rush for the seller of the display space to place all of Y's ads immediately. Advertiser Y's normalized bid amount will thus change little, if at all, from the submitted bid. Advertiser X's bid, however, will be normalized to a higher amount (e.g., greater than \$10) to account for the lack of remaining time in X's advertising plan. As such, it is highly likely that many (and maybe all) of the next 100 display space opportunities will be sold to X at its actual bid of \$7 each, despite the fact that Y had maintained a higher actual bid throughout. Advertiser Y then has the next 900 display space opportunities to place its 300 desired ads. In the end, by accepting X's lower bid amounts early on in Y's advertising plan period, the potential overall advertising revenue for the display space seller is raised, and the seller may now be able to collect revenue for all of the desired ad placements for both X and Y.

2. The Roth Reference³

Roth discloses a "method and system for providing advertisements from a central server to viewers who access web sites." See Roth, 1:66-2:1. "[T]he central server system stores both advertisements which are to be displayed and an information data base. The data base includes information about viewers, information about the characteristics of particular web sites and other information relevant to which advertisements should be displayed for particular viewers." *Id.*, 2:1-7. "[E]ach advertiser provides one or more 'proposed bids' which specify how much the advertiser is willing to pay for displaying a particular advertisement in response to a [display space] with certain characteristics."⁴ *Id.*, 2:20-23. Roth further discloses a bidding system that includes bidding agents 30A-30Z and bid selection logic 16C. See, e.g., *id.*, Figure 1. "The bidding agents **30** compare the information about the [display space] to the proposed bids that have been submitted by advertisers. That is, the bidding agents **30** determine if the characteristics of the [display space] meet the criteria in the proposed bids and if so they submit bids to bid selection logic **16C**" *Id.*, 5:27-32. "[T]he bid selection logic **16C**

³ U.S. Patent No. 6,285,987.

⁴ Note that the "view-op" of Roth is equivalent to applicants' advertising "display space."

compares various bids and selects the highest bid and therefore an advertisement for display." *Id.*, 5:33-35 (emphasis added); *see also id.*, 7:19-23, 7:29-33. The advertisement corresponding to the "winning bid" is then sent from the data base to the viewer's browser. *See, e.g., id.*, 5:35-37. Roth thus does not contemplate the selection of an advertiser bid that is not the "highest bid."

3. The Davis Reference⁵

Davis discloses a technique that allows network information providers (e.g., advertisers) to influence the position for a search listing within a search result list generated by an Internet search engine. *See, e.g., Davis, Abstract; see also id.*, 5:1-14 (describing network information providers or web site promoters as "advertisers"). "The [advertiser] influences a position for a search listing in the provider's account by first selecting a search term relevant to the content of the web site or other information source to be listed." *Id.*, Abstract. The advertiser then "influences the position for a search listing through a continuous online competitive bidding process." *Id.* The bidding process of Davis occurs when an advertiser enters a bid amount for a search listing. *Id.*, 5:62-64. "This bid amount is compared with all other bid amounts from other [advertisers] for the same search term, and generates new rank values for all search listings having that search term. The rank value determines the position where the [advertiser's] web site description will appear on the search results list page A higher bid will result in a higher rank value and a more advantageous placement" *Id.*, 5:65-6:7 (emphasis added); *see also id.*, 9:42-43, 13:13-24, 18:13-17 ("The highest bid amount receives the highest rank value, the next highest bid amount receives the next highest rank value, proceeding to the lowest bid amount, which receives the lowest rank value."), Figure 7 (showing multiple advertising display spaces within a search result where each individual display space is matched with the advertisement having the highest available bid in descending order). Accordingly, Davis does not describe the selection of an advertiser bid that is not the "highest bid" for any particular display space. Instead, Davis selects the highest bid as each available display space is matched with an advertisement.

⁵ U.S. Patent No. 6,269,361.

B. Independent Claims on Appeal

The rejected independent claims are directed to various methods and computer systems for allocating display space on a web page where the selected bid amount is not the highest of the eligible bids. The independent claims are described as follows:

1. Claim 1

Claim 1 is directed to a method in a computer system. The computer system receives multiple bids that indicate a bid amount, an advertisement, and a requested number of web pages on which the advertisement is to be placed during a time period. See, e.g., Specification, 3:25-26, 4:3-5, 6:17-23, 10:23-11:16. The computer system also receives a request from a user to provide a web page. *Id.*, 6:12-14, 15:9-23; Figure 6. Based at least in part on review of the bid amounts and on a likelihood that the advertisement will be placed on the requested number of web pages during the time period, the computer system selects a received bid whose bid amount is not the highest of the bids whose advertisement is eligible to be placed on the web page. *Id.*, 3:26-4:2, 10:23-11:16, 23:1-22. The computer system then adds the advertisement of the selected bid to the web page being provided to the user. *Id.*, 4:2-3, 17:14-16, 18:5-7, Figures 6A and 6B.

2. Claim 45

Claim 45 is directed to a computer system. The computer system includes a database for storing bids indicating a bid amount, an advertisement, and display page eligibility. *Id.*, 3:25-26, 4:3-5, 6:17-23, 10:23-11:16. The computer system includes a component that receives a request to allocate an advertisement for a display page. *Id.*, 17:23-18:4, Figure 6B. The computer system further includes a component that selects a bid based on the bid amount and display page eligibility stored in the database, wherein the selected bid does not have to be the highest bid amount of those bids whose advertisement is eligible to be displayed on the display page. *Id.*, 3:26-4:2, 10:23-11:16, 23:1-22. The computer system includes a component that indicates that the advertisement of the selected bid is being allocated to and displayed within the advertising space of the display page. *Id.*, 4:2-3, 17:14-16, 18:5-7, Figures 6A and 6B.

3. Claim 75

Claim 75 is directed to a method in a computer system. The computer system provides a plurality of advertising plans where each advertising plan has a bid amount, an advertisement, and a specification of a display space on a web page to which the advertisement is to be allocated. *Id.*, 3:25-26, 4:3-5, 6:17-23, 10:23-11:16. The computer system receives a request to select an advertisement for a display space. *Id.*, 17:23-18:4, Figure 6B. The computer system identifies advertising plans whose specification of display space match the display space of the web page. *Id.*, 6:23-7:1, 10:19-23, 22:1-27, Figure 10. The computer system selects an identified advertising plan whose advertisement is to be displayed on the display space and whose bid amount is not the highest bid amount of the identified advertising plans, wherein the selection tends to increase overall advertising revenue. *Id.*, 3:26-4:2, 10:23-11:16. The advertisement of the selected advertising plan is then displayed on the display space. *Id.*, 4:2-3, 17:14-16, 18:5-7, Figures 6A and 6B.

4. Claim 91

Claim 91 is directed to a computer system. The computer system includes a component that provides a plurality of advertising plans where each plan has a bid amount. *Id.*, 6:17-23. The computer system receives a request to select an advertisement for a display space of a display page. *Id.*, 17:23-18:4, Figure 6B. The computer system identifies advertising plans whose advertisements can be placed on the display space of the web page. *Id.*, 6:23-7:1, 10:19-23, 22:1-27, Figure 10. The computer system selects an identified advertising plan whose advertisement is to be displayed on the display space and whose bid amount is not the highest bid amount of the identified advertising plans, wherein the selection tends to increase overall advertising revenue. *Id.*, 3:26-4:2, 10:23-11:16. The advertisement of the selected advertising plan is then displayed on the display space. *Id.*, 4:2-3, 17:14-16, 18:5-7, Figures 6A and 6B.

5. Claim 101

Claim 101 is directed to a method in a computer system. The computer system provides advertising plans, each including a bid amount, an advertisement, and a

requested number of web pages on which the advertisement is to be placed during a time period. *Id.*, 3:25-26, 4:3-5, 6:17-23, 10:23-11:16. For each advertising plan, the computer system tracks the number of times its advertisement has been selected for placement on a web page during its time period. *Id.*, 20:17-21, 21:5-7, 23:1-22, Figures 8B and 11. The computer system receives a request for an advertisement to be placed on a web page that has been requested by a user. *Id.*, 6:12-14, 15:9-23, 17:23-18:4, Figures 6 and 6B. Upon receiving the request, the computer system identifies the provided advertising plans whose advertisements are eligible to be placed on the web page. *Id.*, 6:23-7:1, 10:19-23, 22:1-27, Figure 10. For each eligible advertising plan, the computer system determines the likelihood that its advertisement will be placed on the requested number of web pages based on the placed number and the time remaining in its time period. *Id.*, 23:12-17, Figure 11. The computer system then selects an eligible advertising plan whose determined likelihood is less than the likelihood of another advertising plan and whose bid amount is lower than the bid amount of the other advertising plan. *Id.*, 3:26-4:2, 10:23-11:16, 23:1-22, Figure 11. In response to the earlier request for an advertisement, the computer system sends an indication of the advertisement of the selected advertising plan, so that the advertisement can be displayed on the web page requested by the user. *Id.*, 4:2-3, 17:14-16, 18:5-7, Figures 6A and 6B.

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

A. The Examiner's Rejections

The Examiner has rejected all of the pending claims pursuant to either 35 U.S.C. § 102(e) or 35 U.S.C. § 103(a) on the following bases⁶:

⁶ Note that the bases of rejection for nos. 8-13 mirror the rejections of nos. 2-7, except for the addition of the Davis reference.

#	Claims	Basis	Reference
1	1-5, 45-50, 55, 75-81, 87-89, 91-99, and 101	35 U.S.C. § 102(e)	Roth ⁷
2	1-5, 45-50, 55, 75-81, 87-89, 91-99, and 101	35 U.S.C. § 103(a)	Roth ⁸
3	7, 8, 31-35, 41-43, 51, 52, and 82-86	35 U.S.C. § 103(a)	Roth and Copple
4	9 and 53	35 U.S.C. § 103(a)	Roth, Copple, and Goldhaber
5	44, 90, and 100	35 U.S.C. § 103(a)	Roth, Copple, and Bates
6	36	35 U.S.C. § 103(a)	Roth, Copple, and Tulsie
7	54	35 U.S.C. § 103(a)	Roth, Copple, and Eldering
8	1-5, 45-50, 55, 75-81, 87-89, 91-99, and 101	35 U.S.C. § 103(a)	Roth and Davis ⁹
9	7, 8, 31-35, 41-43, 51, 52, and 82-86	35 U.S.C. § 103(a)	Roth, Davis, and Copple
10	9 and 53	35 U.S.C. § 103(a)	Roth, Davis, Copple, and Goldhaber
11	44, 90, and 100	35 U.S.C. § 103(a)	Roth, Davis, Copple, and Bates
12	36	35 U.S.C. § 103(a)	Roth, Davis, Copple, and Tulsie
13	54	35 U.S.C. § 103(a)	Roth, Davis, Copple, and Eldering

B. The Issues on Appeal

The issues on appeal, and the specific pending claims to which each relates, are:

1. Whether Roth discloses the selection of a proposed bid that is not the highest, despite Roth's statement that the bid selection logic "selects the highest bid and therefore an advertisement for display." The decision on this issue impacts all pending claims on appeal: 1-5, 7-9, 31-36, 41-55, and 75-101.

⁷ On pages 2-4 of the Office Action mailed on January 13, 2005, the Examiner provided a one-paragraph explanation for his rejection of claims 1, 50, 55, 75, 77, 93, and 101 under Roth. Applicants assume that the Examiner meant this explanation to apply to the two remaining independent claims (claims 45 and 91) as well because the explanation is, in large part, directed towards claim language from each of the independent claims that recite "selecting . . . a received bid whose bid amount is not the highest," or similar language.

⁸ See FN 7 above.

⁹ See FN 7 above (substituting pages 9-11 for pages 2-4, and substituting "Roth and Davis" for "Roth").

2. Whether Davis discloses the selection of an advertiser bid that is not the highest bid for a particular display space. The decision on this issue impacts all pending claims on appeal: 1-5, 7-9, 31-36, 41-55, and 75-101.

3. Whether the prior art provides any motivation or suggestion to combine Roth and Davis. The decision on this issue impacts all pending claims on appeal: 1-5, 7-9, 31-36, 41-55, and 75-101.

VII. ARGUMENTS

A. Legal Standards for Anticipation

Thirty-two of the 56 claims on appeal stand rejected as anticipated under 35 U.S.C. § 102(e). 35 U.S.C. § 102(e) provides:

the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent

To establish a *prima facie* case of anticipation, the Examiner is obligated to identify where "each and every facet of the claimed invention is disclosed in the applied reference." *Ex parte Levy*, 17 U.S.P.Q.2d (BNA) 1461, 1462 (Bd. Pat. App. & Interf. 1990); *see also In re Robertson*, 169 F.3d 743, 745, 49 U.S.P.Q.2d (BNA) 1949, 1950 (Fed. Cir. 1999). Moreover, anticipation requires that each claim element must be identical to a corresponding element in the applied reference. *Glaverbel Société Anonyme v. Northlake Mktg. & Supply, Inc.*, 45 F.3d 1550, 1554, 33 U.S.P.Q.2d (BNA) 1496, 1498 (Fed. Cir. 1995).

The Examiner has not satisfied his obligation. The Examiner fails to point to an element in Roth that is identical to selecting a received bid whose bid amount is not the highest of the bids whose advertisement is eligible to be placed on the web page.

B. Legal Standards for Obviousness

All of the claims on appeal also stand rejected as being obvious under 35 U.S.C. § 103(a). 35 U.S.C. § 103(a) provides:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

"[T]he [E]xaminer bears the initial burden of presenting a *prima facie* case of obviousness." *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d (BNA) 1955, 1956 (Fed. Cir. 1993). "A *prima facie* case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art." *Id.* (quoting *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d (BNA) 1529, 1531 (Fed. Cir. 1993)).

To establish a *prima facie* case of obviousness, the Examiner must (1) identify prior art references that disclose all the elements of the claims and (2) provide a suggestion or motivation to modify the references to produce the claimed invention. MPEP § 2143. With respect to the second requirement, the Examiner must provide a suggestion or motivation to combine from within the prior art, and may not rely on hindsight gleaned from applicants' invention itself. See, e.g., *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1050-51, 5 U.S.P.Q.2d (BNA) 1434, 1438 (Fed. Cir. 1988).

Under these standards, applicants' invention would not have been obvious. The Examiner has not identified prior art references that disclose all the elements of the pending claims. The Examiner also has not provided any motivation from within the prior art to modify the Roth and Davis references so as to produce the claimed invention.

C. Roth Does Not Disclose the Selection of a Bid That Is Not the Highest Bid

All of the pending claims include the language "selecting . . . a received bid whose bid amount is not the highest," or similar language.¹⁰ For example, claim 1 recites "selecting, based at least in part on review of bid amounts and on a likelihood that the advertisement will be placed on the requested number of web pages during the time period, a received bid whose bid amount is not the highest of the bids whose

¹⁰ This claim language is recited in all five independent claims.

advertisement is eligible to be placed on the web page," and claim 45 recites "a component that selects a bid based on bid amount and display page eligibility stored in the database, wherein the selected bid does not have the highest bid amount of those bids whose advertisement is eligible to be displayed on the display page."

In contrast to applicants' invention, Roth discloses always selecting the highest bid. Each of Roth's bidding agents decides whether to bid on a display space. A bidding agent, as its name suggests, is a program that works on behalf of an advertiser to place bids in real time for display space. A bidding agent (that decides to bid) may establish an actual bid by factoring in how well the criteria of the display space matches the desired criteria of the advertiser and factoring in whether the advertiser will have the desired number of advertisements placed. For example, if a display space only marginally satisfies the advertiser's criteria, then the bidding agent may place a bid that is low compared to the bid that would be placed if the display space fully satisfied the advertiser's criteria. As another example, if a bidding agent determines that the desired number of advertisements is not being placed, then the bidding agent may submit a bid that is higher than the bid that would be placed in a situation that is similar except that the desired number of advertisements is being placed. Thus, Roth's bidding agent is simply a proxy for an advertiser and automates the advertiser's policy of deciding when and how much to bid for display space so that bids can be placed in real time.

Once Roth's bidding agents place bids, Roth's bid selection logic always selects the highest bid. The advertiser with the highest bid is awarded the display space and that advertiser is charged its bid amount. Roth does not disclose the selection of a bid that is not the highest bid.

Nonetheless, it is the Examiner's position that:

In the case where an under-achieving ad is influenced enough by the optimization process so as to be selected over a higher, competing proposed bid, the ad process can be said to have selected an ad associated with a [sic] advertiser-submitted bid that is not the highest. System-increase of a low proposed bid so that the ad gets chosen is taken to be functionally the same as selecting a lower bid for an under-achieving ad.

Office Action, January 13, 2005, at 4. The Examiner's position as to "functionally the same as" is based on a misunderstanding of Roth's "proposed bid" and the distinction between an advertiser submitting the highest bid at an auction and winning and submitting a bid that is not the highest and winning. More importantly, the test for patentability is whether an invention is obvious and not whether an invention is "functionally the same as" something else as the Examiner seems to suggest.

First, the Examiner misunderstands Roth's "proposed bid." A proposed bid "specifies how much the advertiser is will to pay for displaying a particular advertisement in response to a [display space] with certain characteristics." Roth 2:20-23. "The amount bid for a [display space] can be dependent on as many criteria as the advertiser cares to specify." Roth 2:35-37. A proposed bid is not a set bid amount that is somehow increased by the "system," rather a proposed bid is simply an expression of the bidding policy of an advertiser that the advertiser's bidding agent will implement. Thus, Roth has no "low proposed bid" that is somehow increased by the "system" as the Examiner suggests.

Second, the Examiner is confusing the process of an advertiser deciding how much to bid (e.g., the process of Roth's bidding agent) with the auctioneer's process of deciding which bid to select as the winning bid (e.g., the process of Roth's bid selection logic). Applicants' claims are directed to the process of deciding which bid to select as the winning bid, and not to the process of deciding how much to bid.

The Examiner's position more simply stated is that applicants' invention is obvious because an advertiser, who would otherwise bid a low amount, bids a high amount for some reason and thus wins the auction. The Examiner believes that this first scenario is "functionally the same as" a second scenario in which the advertiser places a low bid and the auctioneer decides for some reason to select that low bid amount as the winning bid.

The Examiner is wrong. These scenarios are not "functionally the same." One major difference is that the advertiser is charged the high bid amount in the first scenario and the low bid amount in the second scenario. Of course, the advertiser sees a significant difference in the amount that the advertiser is charged in these two scenarios.

Moreover, in the first scenario no attempt is made to maximize the advertising revenue of the seller. This difference in revenue maximization can be illustrated in reference to the example of Section V.A.1 of this brief. Recall that, by selecting a bid amount that is not the highest, applicants' invention may maximize the overall advertising revenue of the seller by collecting \$700 from advertiser X and \$3000 from advertiser Y. Roth's technique, which always selects the highest bid, would only generate \$3000 in revenue because (1) Y's higher bid would always be selected before X's bid and (2) X's time period would expire with 100 ads left unplaced. Thus, the seller would be foregoing \$700 in revenue.

The Examiner may argue that X's bidding agent could bid a higher amount and would win the auction. X's bidding agent, however, absent some collusion with Y or breach of Y's confidentiality by the auctioneer, does not know to bid a higher amount. Moreover, even if X knew the amount needed to win, X might not be able to afford or even want to bid a higher amount. Thus, X's decision for whatever reason not to bid a higher amount results in the seller losing revenue, which a system implementing applicants' invention could capture for the seller.

The Examiner has not cited any portion of Roth that discloses the selection of a proposed bid that is not the highest bid. Further, the Examiner has not identified anywhere that Roth suggests or teaches the selection of a proposed bid that is not the highest bid. Roth simply does not do so. In fact, Roth specifically states that the bid selection logic "selects the highest bid." *Id.*, 5:34, 7:21, 7:31-32. Thus, the Examiner has not identified any prior art reference that discloses the selection of a proposed bid that is not the highest bid, as recited in the pending claims. If a *prima facie* case of anticipation or obviousness has not been established, "then without more the applicant is entitled to grant of the patent." *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d (BNA) 1443, 1444 (Fed. Cir. 1992). Since the Examiner has not presented a *prima facie* case of anticipation or obviousness, the pending claims should be allowed.

D. Rejections Over Roth (Not Combined With Davis)

1. Anticipation Rejections Over Roth: Claims 1-5, 45-50, 55, 75-81, 87-89, 91-99, and 101

These claims recite "selecting . . . a received bid whose bid amount is not the highest," or similar language. The Examiner relies on Roth for disclosing the selection of a proposed bid that is not the highest bid. Roth does not disclose this claim element, as explained above in Section VII.C.

2. Obviousness Rejections Over Roth: Claims 1-5, 45-50, 55, 75-81, 87-89, 91-99, and 101

These claims recite "selecting . . . a received bid whose bid amount is not the highest," or similar language. The Examiner relies on Roth for suggesting or teaching the selection of a proposed bid that is not the highest bid. Roth does not include that suggestion or teaching, as explained above in Section VII.C.

3. Obviousness Rejections Over the Combination of Roth and Copple: Claims 7, 8, 31-35, 41-43, 51, 52, and 82-86

These claims recite "selecting . . . a received bid whose bid amount is not the highest," or similar language. In rejecting their independent base claims, the Examiner relies on Roth for suggesting or teaching the selection of a proposed bid that is not the highest bid. Roth does not include that suggestion or teaching, as explained above in Section VII.C.

4. Obviousness Rejections Over the Combination of Roth, Copple, and Goldhaber: Claims 9 and 53

These claims recite "selecting . . . a received bid whose bid amount is not the highest," or similar language. In rejecting their independent base claims, the Examiner relies on Roth for suggesting or teaching the selection of a proposed bid that is not the highest bid. Roth does not include that suggestion or teaching, as explained above in Section VII.C.

5. Obviousness Rejections Over the Combination of Roth, Copple, and Bates: Claims 44, 90, and 100

These claims recite "selecting . . . a received bid whose bid amount is not the highest," or similar language. In rejecting their independent base claims, the Examiner relies on Roth for suggesting or teaching the selection of a proposed bid that is not the highest bid. Roth does not include that suggestion or teaching, as explained above in Section VII.C.

6. Obviousness Rejections Over the Combination of Roth, Copple, and Tulske: Claim 36

This claim recites "selecting . . . a received bid whose bid amount is not the highest." In rejecting its independent base claim, the Examiner relies on Roth for suggesting or teaching the selection of a proposed bid that is not the highest bid. Roth does not include that suggestion or teaching, as explained above in Section VII.C.

7. Obviousness Rejections Over the Combination of Roth, Copple, and Eldering: Claim 54

This claim recites "a component that selects a bid . . . wherein the selected bid does not have the highest bid amount." In rejecting its independent base claim, the Examiner relies on Roth for suggesting or teaching the selection of a proposed bid that is not the highest bid. Roth does not include that suggestion or teaching, as explained above in Section VII.C.

E. Davis Does Not Disclose the Selection of a Proposed Bid That Is Not the Highest Bid

Similarly to Roth (discussed above), Davis also does not disclose the selection of a proposed bid that is not the highest bid. Nonetheless, the Examiner characterizes Davis as follows:

Davis et al teaches ad opportunities that each call for include [sic] plural, targeted ads that are to be placed on the page according [sic] descending bid amounts. It would have been obvious to one of ordinary skill at the time of the invention to have auctioned ad opportunities using the system of Roth et al whereby plural winning ads are selected in a manner as taught by Davis et al. This would

increase advertising revenue. Any of the second or lower-placed ads correspond to selected bids other than the highest bid.

Office Action, January 13, 2005, at 9. The Examiner is mistaken. Davis does not disclose the selection of a bid that is not the highest. On the contrary, Davis selects the highest bid as each available display space is matched with an advertisement. Moreover, if multiple display spaces are available, Davis selects a number of the highest bids to fill the display spaces. Davis allocates the most advantageous display space to the highest bid, the second most advantageous display space to the next highest bid, and so on. Davis always allocating display space to the eligible advertisement with the highest bid and makes no suggestion to the contrary.

Davis does describe that an advertiser "influences a position for a search listing in the provider's account by first selecting a search term relevant to the content of the web site or other information source to be listed." Davis, Abstract. The advertiser then "influences the position for a search listing through a continuous online competitive bidding process." *Id.* The bidding process of Davis occurs when an advertiser enters a bid amount for a search listing. *Id.*, 5:62-64. "This bid amount is compared with all other bid amounts from other [advertisers] for the same search term, and generates new rank values for all search listings having that search term. The rank value determines the position where the [advertiser's] web site description will appear on the search results list page A higher bid will result in a higher rank value and a more advantageous placement" *Id.*, 5:65-6:7 (emphasis added); *see also id.*, 9:42-43, 13:13-24, 18:13-17 ("The highest bid amount receives the highest rank value, the next highest bid amount receives the next highest rank value, proceeding to the lowest bid amount, which receives the lowest rank value."), Figure 7 (showing multiple advertising display spaces within a search result where each individual display space is matched with the advertisement having the highest available bid in descending order). Accordingly, each time Davis selects an advertisement for a particular display space, Davis selects the eligible advertisement with the highest bid amount.

Davis auctions display space in a search result listing. For example, a web page may have eight spaces, meaning that it can display eight links to web pages of a search result listing as shown in Figure 7 of Davis. Davis allocates a number of the spaces to paid links and the rest to unpaid links. In the example of Figure 7, Davis allocates six spaces 710a-710f to paid links. According to Davis, the advertiser who places the highest bid for a space on the web page is awarded space and has its ad placed in the first position or highest space, the advertiser who places the second highest bid has its ad placed in the second highest space, and so on.

Since Davis always awards the highest available display space to the highest outstanding bid, Davis maximizes revenue for each individual web page, but may forego the overall revenue that applicants' invention captures. Although Davis's multiple bids for multiple display spaces can result in a more complex analysis for overall revenue maximization, a simple scenario can illustrate the difference between Davis's technique and applicants' invention. For this scenario, assume that a web page has six spaces for paid advertisers and assume that the five highest bids have been awarded the five highest display spaces as Davis teaches. Given these assumptions, the auction for the sixth and last space can be analyzed in a manner similar to the example of Section V.A.1 of this brief. If advertiser X bids \$7 and only has time to place one more ad and advertiser Y bids \$10 and has plenty of time to place its desired ad, then it would maximize the overall revenue of the seller to award the last display space to X, rather than Y. By awarding the last position of the web page to X's lower bid, the seller would receive \$7 from X for the last display space of the web page and then would receive \$10 from Y when Y is eventually awarded display space on a different web page for its ad, for a total additional revenue of \$17 for the two ads. In contrast, by awarding the last position of the web page to Y's higher bid amount, the seller would maximize revenue for that display space, but would reduce overall revenue. By awarding the last display space to Y, the seller would receive \$10 from Y, but would not receive \$7 from X because X's ad would be left unplaced, for a total additional revenue of only \$10.

In short, Davis always awards the highest available position to the advertiser with the highest outstanding bid. The Examiner has not identified anywhere that Davis suggests or teaches the selection of a proposed bid that is not the highest bid. Davis simply does not do so. In fact, Davis selects the eligible advertisement that has not yet been placed that has the highest bid amount. Davis's awarding of multiple display spaces to multiple advertisers based on bid amount order does not suggest or teach otherwise. Thus, the Examiner has not identified any prior art reference that discloses the selection of a proposed bid for a display space that is not the highest bid, as recited in the pending claims. If a *prima facie* case of obviousness has not been established, "then without more the applicant is entitled to grant of the patent." *Oetiker*, 977 F.2d at 1445, 24 U.S.P.Q.2d (BNA) at 1444.

F. Rejections Over Roth Combined With Davis

1. Obviousness Rejections Over the Combination of Roth and Davis: Claims 1-5, 45-50, 55, 75-81, 87-89, 91-99, and 101

These claims recite "selecting . . . a received bid whose bid amount is not the highest," or similar language. The Examiner relies on Roth and Davis for suggesting or teaching the selection of a proposed bid that is not the highest bid. Roth and Davis do not include that suggestion or teaching, as explained above in Sections VII.C and E.

2. Obviousness Rejections Over the Combination of Roth, Davis, and Copple: Claims 7, 8, 31-35, 41-43, 51, 52, and 82-86

These claims recite "selecting . . . a received bid whose bid amount is not the highest," or similar language. In rejecting their independent base claims, the Examiner relies on Roth and Davis for suggesting or teaching the selection of a proposed bid that is not the highest bid. Roth and Davis do not include that suggestion or teaching, as explained above in Sections VII.C and E.

3. Obviousness Rejections Over the Combination of Roth, Davis, Copple, and Goldhaber: Claims 9 and 53

These claims recite "selecting . . . a received bid whose bid amount is not the highest," or similar language. In rejecting their independent base claims, the Examiner relies on Roth and Davis for suggesting or teaching the selection of a proposed bid that is

not the highest bid. Roth and Davis do not include that suggestion or teaching, as explained above in Sections VII.C and E.

4. Obviousness Rejections Over the Combination of Roth, Davis, Copple, and Bates: Claims 44, 90, and 100

These claims recite "selecting . . . a received bid whose bid amount is not the highest," or similar language. In rejecting their independent base claims, the Examiner relies on Roth and Davis for suggesting or teaching the selection of a proposed bid that is not the highest bid. Roth and Davis do not include that suggestion or teaching, as explained above in Sections VII.C and E.

5. Obviousness Rejections Over the Combination of Roth, Davis, Copple, and Tulske: Claim 36

This claim recites "selecting . . . a received bid whose bid amount is not the highest." In rejecting its independent base claim, the Examiner relies on Roth and Davis for suggesting or teaching the selection of a proposed bid that is not the highest bid. Roth and Davis do not include that suggestion or teaching, as explained above in Sections VII.C and E.

6. Obviousness Rejections Over the Combination of Roth, Copple, and Eldering: Claim 54

This claim recites "a component that selects a bid . . . wherein the selected bid does not have the highest bid amount." In rejecting its independent base claim, the Examiner relies on Roth and Davis for suggesting or teaching the selection of a proposed bid that is not the highest bid. Roth and Davis do not include that suggestion or teaching, as explained above in Sections VII.C and E.

G. The Prior Art Does Not Provide a Motivation or Suggestion to Combine Roth and Davis

The Examiner points to no motivation or suggestion in the prior art for combining Roth and Davis, and the prior art indeed provides none. A motivation or suggestion to combine must come from the prior art. *In re Zurko*, 258 F.3d 1379, 1385-86, 59 U.S.P.Q.2d (BNA) 1693, 1697 (Fed. Cir. 2001); *In re Rijckaert*, 9 F.3d at 1532, 28 U.S.P.Q.2d (BNA) at 1956. The Examiner did not identify anything in the prior art that

provides such a suggestion or motivation. Instead, the Examiner relies on his opinion, stating simply that "[i]t would have been obvious to one of ordinary skill at the time of the invention to have auctioned ad opportunities using the system of Roth et al. whereby plural winning ads are selected in a manner as taught by Davis et al." and that "[t]his would increase advertising revenue." Office Action, January 13, 2004, at 9. The Examiner's unsupported and conclusory opinion is insufficient to establish a motivation to combine. *See, e.g., In re Zurko*, 258 F.3d at 1385-86, 59 U.S.P.Q.2d (BNA) at 1697.

In addition, the Examiner's statements are a classic—and legally impermissible—use of hindsight. The Examiner recognizes some of the improvements contributed by applicants' invention, and attempts to attribute those improvements to some sort of common sense or background knowledge available to anyone of ordinary skill in the art at the time of the invention. The Federal Circuit has consistently held that reliance on such common sense or basic knowledge is impermissible. *Id.*; *see also In re Sang Su Lee*, 277 F.3d 1338, 61 U.S.P.Q.2d (BNA) 1430 (Fed. Cir. 2002). No teaching or motivation from within the prior art suggested combining Roth with Davis, and again, the Examiner's conclusory statements are insufficient.

Moreover, the Examiner has not even explained how Davis could be combined with Roth. In particular, Examiner has not explained how Roth's auction of a display space could somehow be modified according to Davis to allow for "plural winning ads." Applicants do not understand how Roth's single display space can be awarded to "plural winning ads" as the Examiner suggests.

H. Conclusion

The Examiner fails to establish even a *prima facie* case of anticipation or obviousness for any of applicants' pending claims. Every independent claim recites "selecting . . . a received bid whose bid amount is not the highest," or similar language. The Examiner relies on Roth to provide that teaching, but Roth does not disclose the selection of a proposed bid that is not the highest bid. To the contrary, Roth specifically states that the bid selection logic "compares various bids and selects the highest bid." Roth, 5:33-34 (emphasis added). The Examiner also relies on Davis to provide that

teaching, but similarly, Davis does not disclose the selection of a bid that is not the highest bid. Davis, instead, selects the highest bid as each available display space is awarded to an advertisement. Lastly, the Examiner has not provided any motivation or suggestion to combine the Roth and Davis references that is not based on hindsight or the applicants' own invention itself.

Because the Examiner has failed to establish that the claims are either anticipated or obvious, applicants are entitled to a patent. Applicants respectfully request that the rejection of these claims be reversed.

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Respectfully submitted,

By Maurice J. Piro
Maurice J. Piro
Registration No.: 33,273
PERKINS COIE LLP
P.O. Box 1247
Seattle, Washington 98111-1247
(206) 359-8000
(206) 359-7198 (Fax)
Attorneys for Applicants

CLAIMS APPENDIX

Claims Involved in the Appeal of Application Serial No. 09/437,815

1. A method in a computer system for allocating display space on a web page, the method comprising:
receiving multiple bids indicating a bid amount, an advertisement, and a requested number of web pages on which the advertisement is to be placed during a time period;
receiving a request to provide the web page to a user;
selecting, based at least in part on review of bid amounts and on a likelihood that the advertisement will be placed on the requested number of web pages during the time period, a received bid whose bid amount is not the highest of the bids whose advertisement is eligible to be placed on the web page; and
adding the advertisement of the selected bid to the web page.
2. The method of claim 1 wherein the selecting of a received bid is performed after receiving of the request.
3. The method of claim 1 wherein the selecting of the received bid is based at least in part on demographics of the user.
4. The method of claim 1 wherein the selecting of the received bid is based at least in part on time at which the request is received.
5. The method of claim 1 wherein the selecting of the received bid is based at least in part on a category to which the web page relates.
6. (Cancelled)

7. The method of claim 1 wherein the bid amount is based on points received for participating in a commercial transaction.

8. The method of claim 7 wherein the commercial transaction is an auction.

9. The method of claim 1 wherein the bid amount is based on points received for clicking through one web page to another web page.

10-30. (Cancelled)

31. The method of claim 1 including allocating points to users based on results of participation in transactions and wherein a bid amount indicates a number of allocated points.

32. The method of claim 31 wherein the transaction is an auction.

33. The method of claim 32 wherein the participation is listing of an item to be auctioned.

34. The method of claim 32 wherein the participation is placing a bid on an item.

35. The method of claim 32 wherein the participation is purchasing the item.

36. The method of claim 31 wherein the participation is providing a web page through which a person selects another web page.

37-40. (Cancelled)

41. The method of claim 31 wherein a bid is received from a software component that identifies an advertising strategy for the user.

42. The method of claim 41 wherein the advertising strategy is based at least in part on access patterns of users to categories with which display space is associated.

43. The method of claim 41 wherein the advertising strategy is based at least in part on similarity of an item being advertised to a category with which the display space is associated.

44. The method of claim 41 wherein the advertising strategy is based at least in part on whether an item being advertised competes with an item associated with the display space.

45. A computer system for allocating advertising space on display pages, comprising:

- a database for storing bids indicating bid amount, an advertisement, and display page eligibility;
 - a component that receives a request to allocate an advertisement for a display page;
 - a component that selects a bid based on bid amount and display page eligibility stored in the database, wherein the selected bid does not have the highest bid amount of those bids whose advertisement is eligible to be displayed on the display page; and
 - a component that indicates that the advertisement of the selected bid is being allocated to advertising space of the display page
- so that the advertisement of the selected bid is displayed within the advertising space of the display page.

46. The computer system of claim 45 wherein the selecting of a bid is performed after receiving of the request.

47. The computer system of claim 45 wherein the display page eligibility is based in part on demographics of the user.

48. The computer system of claim 45 wherein the display page eligibility is based in part on time at which the request is received.

49. The computer system of claim 45 wherein the display page eligibility is based in part on a category to which the display page relates.

50. The computer system of claim 45 including associated with each bid a requested number of advertisements to be placed within a specified time period, and wherein bids are selected in part on a likelihood that the requested number of advertisements associated with the bid will be placed within a specified time period.

51. The computer system of claim 45 wherein the bid amount is based on points received for participating in a commercial transaction.

52. The computer system of claim 51 wherein the commercial transaction is an auction.

53. The computer system of claim 45 wherein the bid amount is based on points received for clicking through one display page to another display page.

54. The computer system of claim 45 wherein the bid amount varies based on degree to which the display page matches the display page eligibility.

55. The computer system of claim 45 wherein display space is auctioned to bidders.

56-74. (Cancelled)

75. A method in a computer system for allocating display space on a web page, the method comprising:

providing a plurality of advertising plans, each advertising plan having a bid amount, an advertisement, and a specification of a display space to which the advertisement is to be allocated;

receiving a request to select an advertisement for a display space of a web page;

identifying advertising plans whose specification of display space match the display space of the web page; and

selecting an identified advertising plan whose advertisement is to be displayed on the display space of the web page and whose bid amount is not the highest bid amount of the identified advertising plans wherein selecting such an identified advertising plan tends to increase overall advertising revenue

so that the advertisement of the selected advertising plan is displayed on the display space of the web page.

76. The method of claim 75 wherein each advertising plan has an end time and a requested number of advertisement placements and wherein the selecting selects an advertisement plan with a lower bid amount that is near its end time rather than an advertisement plan with a higher bid amount that is not as near its end time.

77. The method of claim 76 wherein each advertising plan includes a requested number of web pages on which to place advertisements and wherein the selecting factors in the number of the requested number of web pages on which advertisements have been placed.

78. The method of claim 75 including dynamically generating a normalized bid amount for at least some of the advertising plans and wherein the selecting selects the identified advertising plan with the highest normalized bid amount.

79. The method of claim 78 wherein the normalized bid amount for an advertising plan factors in the likelihood that the advertisement will be included on a requested number of web pages.

80. The method of claim 75 wherein the identifying of the advertising plans is based at least in part on demographics of a user requesting the web page.

81. The method of claim 75 wherein the identifying of the advertising plans is based at least in part on a category to which the web page relates.

82. The method of claim 75 wherein a bid amount is based on points received for participating in a commercial transaction.

83. The method of claim 82 wherein the commercial transaction is an auction.

84. The method of claim 83 wherein the participation is a listing of an item to be auctioned.

85. The method of claim 83 wherein the participation is bidding at the auction.

86. The method of claim 83 wherein the participation is placing the winning bid at the auction.

87. The method of claim 75 wherein an advertising plan is received from a software component that identifies an advertising strategy.

88. The method of claim 87 wherein the advertising strategy is based at least in part on access patterns of users to categories with which display space is associated.

89. The method of claim 87 wherein the advertising strategy is based at least in part on similarity of an item being advertised to a category with which the display space is associated.

90. The method of claim 87 wherein the advertising strategy is based at least in part on whether an item being advertised competes with an item associated with the display space.

91. A computer system for allocating display space on a display page, comprising:

- a component that provides a plurality of advertising plans, each advertising plan with a bid amount;

- a component that receives a request to select an advertisement for a display space of the display page;

- a component that identifies advertising plans whose advertisements can be placed on the display space of the display page; and

- a component that selects an identified advertising plan whose advertisement is to be displayed on the display space of the display page and whose bid amount is not the highest bid amount of the identified advertising plans wherein selecting such an identified advertising plan tends to increase overall advertising revenue

so that the advertisement of the selected advertising plan is displayed on the display space of the display page.

92. The computer system of claim 91 wherein each advertising plan has an end time and a requested number of advertisement placements and wherein the selecting

selects an advertisement plan with a lower bid amount that is near its end time rather than an advertisement plan with a higher bid amount that is not as near its end time.

93. The computer system of claim 92 wherein each advertising plan includes a requested number of display pages on which to place advertisements and wherein the selecting factors in the number of the requested number of display pages on which advertisements have been placed.

94. The computer system of claim 91 including generating a normalized bid amount for at least some of the identified advertising plans and wherein the selecting selects the identified advertising plan with the highest normalized bid amount.

95. The computer system of claim 94 wherein the normalized bid amount is generated dynamically.

96. The computer system of claim 94 wherein the normalized bid amount for an advertising plan factors in the likelihood that the advertisement will be included on a requested number of display pages.

97. The computer system of claim 91 wherein an advertising plan is received from a software component that identifies an advertising strategy.

98. The computer system of claim 97 wherein the advertising strategy is based at least in part on access patterns of users to categories with which display space is associated.

99. The computer system of claim 97 wherein the advertising strategy is based at least in part on similarity of an item being advertised to a category with which the display space is associated.

100. The computer system of claim 97 wherein the advertising strategy is based at least in part on whether an item being advertised competes with an item associated with the display space.

101. A method in a computer system for selecting advertisements for placement on web pages, the method comprising:

- providing advertising plans, each advertising plan including an amount that is a bid amount, an advertisement, and a requested number of web pages on which the advertisement is to be placed during a time period;

- for each advertising plan, tracking a placed number of times its advertisement has been selected for placement on a web page during its time period;

- receiving a request for an advertisement to be placed on a web page that has been requested by a user; and

- upon receiving the request,

 - identifying provided advertising plans whose advertisements are eligible to be placed on the web page;

 - for each eligible advertising plan, determining a likelihood that its advertisement will be placed on the requested number of web pages based on the placed number and the time remaining in its time period;

 - selecting an eligible advertising plan whose determined likelihood is less than the likelihood of another advertising plan and whose amount is lower than the amount of the other advertising plan; and

 - sending an indication of the advertisement of the selected advertising plan as a response to the received request

 - so that the advertisement of the selected advertising plan can be displayed on the web page that has been requested by a user.

EVIDENCE APPENDIX

No evidence pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 or entered by or relied on by the Examiner is being submitted.

RELATED PROCEEDINGS APPENDIX

There are no related appeals, interferences, or judicial proceedings.